

来自德国迈格公司

pH mV μ S mS O₂ Cl₂ °C



MV 3000 / 4000

水质变送器

MV 3000 / 4000

Messverstärker / Transmitter

应用案例

- 水处理技术
- 水质监测系统
- 工业过程监测
- 过程控制

特点

- 有效的多参数水质测量
- 可显示测量值
- 同时温度测量
- 2个模拟输出, 1个继电器输出
- USB接口
- DIN机架模块

MV 3000 和 MV 4000系列变送器, 很好地适合1个或者多个参数的连续测量, 可以连接PLC控制器, 数据记录仪, 打印机或者其它可视化设备。

它们具有高灵活性, 操作简单等特点。校正可以在变送器上进行。对于MV4000系列, 每个变送器增加了一个显示屏幕, 可以显示测量值, 检查和校正。

通过USB接口和电脑相连, 可以通过软件进行配置, 校正和记录数据。

Applications

- Water Technology
- Water Quality Monitoring Systems
- Process Monitoring
- Process Control

Features

- cost-efficient measurement of process parameters
- display for measuring values and clear calibration instructions
- simultaneous temperature measurement
- 2 free scaleable analogue outputs and 1 relay output
- USB interface and PC software
- modular DIN rail mounted case

- networking with display unit for 8 measuring values
- firmware update via USB

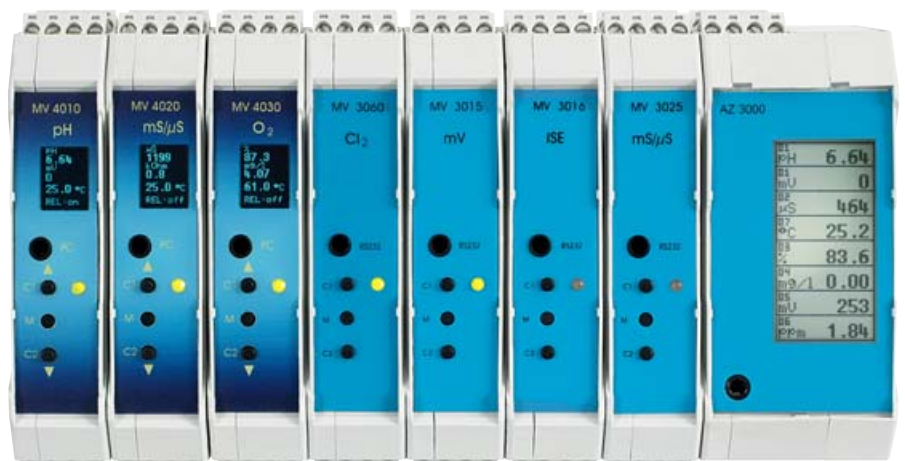
The transmitter series MV 3000 and MV 4000 are excellently suited for continuous measurements of one or more parameters in connection with process control units, data loggers, -printers or visualisation systems.

They are characterised by high flexibility and simple handling. Calibrations can be done directly on transmitter.

An additional display on MV 4000 simplifies measuring value checks, calibrations and makes each transmitter to a stand-alone measuring instrument.

All transmitters can be connected with the display unit AZ 3000. In this way the customer gets a complete multi-parameter measuring system with data logger and fieldbus interface RS-485.

Simple software features configuring with logging of configuration parameters, calibration as well as displaying and recording of measuring values directly on PC using USB interface. Additionally the series MV 4000 allows actualisation of firmware via flash update.



I MV 3000/4000 概览

型号 type	名称/ component	描述	description
MV 40XX	变送器 / Transmitter	<ul style="list-style-type: none"> ■ 显示 ■ USB-接口 ■ 电流输出 2 x 0(4) ... 20 mA ■ 1 继电器输出 ■ 	<ul style="list-style-type: none"> ■ display ■ USB-interface ■ scalable current outputs ■ 2 x 0(4) ... 20 mA ■ 1 floating relay output
MV 40XX-U	变送器 / Transmitter	<ul style="list-style-type: none"> ■ 显示 ■ USB-接口 ■ 电压输出 2 x 0 ... 5 V ■ 1 继电器输出 ■ 	<ul style="list-style-type: none"> ■ display ■ USB-interface ■ scalable voltage outputs ■ 2 x 0 ... 5 V ■ 1 floating relay output
MV 30XX	变送器 / Transmitter	<ul style="list-style-type: none"> ■ RS-232-接口 ■ 电流输出 2 x 0(4) ... 20 mA ■ 1 继电器输出 ■ 	<ul style="list-style-type: none"> ■ RS-232-interface ■ scalable current outputs ■ 2 x 0(4) ... 20 mA ■ 1 floating relay output
MV 30XX-U	变送器 / Transmitter	<ul style="list-style-type: none"> ■ RS-232-接口 ■ 电压输出 2 x 0 ... 5 V ■ 1 继电器输出 ■ 	<ul style="list-style-type: none"> ■ RS-232-interface ■ scalable voltage outputs ■ 2 x 0 ... 5 V ■ 1 floating relay output
AZ 3000-(U) optional	变送器 / Display Unit	<ul style="list-style-type: none"> ■ Anzeige für 8 Messwerte ■ RS-485 Schnittstelle ■ Datenlogger ■ 2 virtuelle Kanäle ■ 2 Analogausgänge ■ AZ 3000: 2 x 0(4) ... 20 mA ■ AZ 3000-U: 2 x 0 ... 5 V ■ 2 Relaisausgänge ■ konfigurierbar über RS-232, USB 	<ul style="list-style-type: none"> ■ display for 8 values ■ RS-485 interface ■ data logger ■ 2 virtual channels ■ 2 analogue outputs ■ AZ 3000: 2 x 0(4) ... 20 mA ■ AZ 3000-U: 2 x 0 ... 5 V ■ 2 relay outputs ■ configurable via RS-232, USB

Bild linke Seite:
Netzwerk mit Anzeigeteil AZ 3000
und Messverstärkern MV 30XX/40XX

picture left:
Network with display unit AZ 3000
and Transmitter MV 30XX/40XX

Vergrößerung linke Seite:
Einzelanzeige für 3 Messwerte
(Hauptwert, Nebenmesswert:
z. B. Messkettenspannung, Temperatur)
und Kalibrieranweisungen

magnification left:
separate display for 3 measuring values
(value 1, value 2: e. g. electrode potential,
temperature) and instruction
for calibration

| Overview Transmitter MV 3000 / 4000 概览

带显示 / with display	不带显示 / without display	测量范围/measuring range	分辨率 / resolution	温度 /temperature meas.
MV 4010	MV 3010	<p>■ pH</p> <p>■ -2 ... 16</p>	pH 0,01	-10 ... 130 °C Res. 0,1 °C
MV 4015	MV 3015	<p>■ 氧化还原电位/ ORP</p> <p>■ -2000 ... +2000 mV</p>	1 mV	-10 ... 130 °C Res. 0,1 °C
MV 4016	MV 3016	<p>■ 离子浓度 / ion concentration</p> <p>■ sensorabhängig (ISE) / sensor specific (ISE)</p>		-10 ... 130 °C Res. 0,1 °C
MV 4020	MV 3020	<p>■ 电导率 / conductivity (2-pol)</p> <p>■ 0 ... 200 μS/cm</p> <p>■ 0 ... 2000 μS/cm</p> <p>■ 0 ... 20 mS/cm</p> <p>■ 0 ... 100 mS/cm</p> <p>■ 盐度 / salinity 2 ... 42 g/kg</p> <p>■ 阻抗/ resistor</p>	<p>0,1 μS/cm</p> <p>1,0 μS/cm</p> <p>0,01 mS/cm</p> <p>0,10 mS/cm</p>	-10 ... 130 °C Res. 0,1 °C
MV 4025	MV 3025	<p>■ 电导率 / conductivity (4-pol)</p> <p>■ 0 ... 200 μS/cm</p> <p>■ 0 ... 2000 μS/cm</p> <p>■ 0 ... 20 mS/cm</p> <p>■ 0 ... 500 mS/cm</p> <p>■ Salinität / salinity 2 ... 42 g/kg</p> <p>■ Widerstand / resistor</p>	<p>0,1 μS/cm</p> <p>1,0 μS/cm</p> <p>0,01 mS/cm</p> <p>0,10 mS/cm</p>	-10 ... 130 °C Res. 0,1 °C
MV 4030	MV 3030	<p>■ 溶解氧/ dissolved oxygen</p> <p>■ 0 ... 200 %</p> <p>■ 0 ... 20 mg/l</p>	<p>0,1 %</p> <p>0,01 mg/l</p>	-10 ... 130 °C Res. 0,1 °C
MV 4060	MV 3060	<p>■ 余氯和二氧化氯/concentration (chlorine-, dioxide, ...)</p> <p>■ 0 ... 2(10) mg/l</p>	0,01 mg/l	-10 ... 130 °C Res. 0,1 °C



Bestimmte Anwendungen erfordern besondere Sensoren:
z. B. pH-Elektrode EGA 161 für ionenarmes Wasser (siehe MEINSBERGER Elektroden).

Special applications require special sensors:
e. g. pH-electrode EGA 161 for low ionic strength (see MEINSBERG Electrodes).

Technische Daten

Messverstärker MV 3000 / 4000

Temperaturkompensation

- automatisch mit Pt 1000 oder Festtemperatur

Kalibrierung

- über 2 vorkonfigurierbare Tasten oder PC-Software

Signalisation

- LED: Messwertstabilität bei Kalibrierung, Messung, Fehler

Display (Serie MV 4000)

- graphisches LCD, 48 x 64 Pixel, hintergrundbeleuchtet,
- Anzeige für 3 Messwerte (Haupt-, Neben- und Temperaturmesswert)
- Kalibrierschrittanweisungen in Klartext

Steuerausgänge

- 1 Grenzwert-Schaltkontakt, Schließer 24 V AC/DC, max. 1 A

Analogausgänge

- 2 x 0(4) ... 20 mA oder 2 x 0 ... 5 V

Schnittstellen

- MV 4000: USB (optional RS-232)
- MV 3000: RS-232
- für Konfiguration, Kalibrierung und Datenaufzeichnung

Abmessungen (B x H x T)

- 22,5 x 99 x 114,5 mm

Anzeige AZ 3000**Display**

- graphisches LCD, 64 x 128 Pixel
- Anzeige für 8 direkte / virtuelle Messwerte

Steuerausgänge

- 2 Grenzwert-Schaltkontakte, Schließer 24 V AC/DC, max. 1 A

Analogausgänge

- 2 x 0(4) ... 20 mA oder 2 x 0 ... 5 V

Schnittstellen

- RS-232 (optional USB) für Parametrierung und Konfiguration
- RS-485 für Datenübertragung (ASCII-Protokoll)

Virtuelle Kanäle

- 2 virtuelle Kanäle für Addition, Differenz, absolute Differenz von Messwerten sowie pH-Kompensation von freiem Chlor

Datenlogger

- 64 kB, ca. 2500 Messwerte
- Logging-Intervall einstellbar (1 ... 999 s)

Abmessungen (B x H x T)

- 45 x 99 x 114,5 mm

Allgemein**Firmware-Update**

- über PC-Schnittstelle (nur MV 4000)

Stromversorgung

- 15 ... 24 V AC / DC, ca. 1,5 VA

Umgebungstemperatur

- 0 ... 50 °C

Gehäuse

- Kunststoffgehäuse zur Befestigung auf Hutschiene DIN EN 50022-35
- Schutzart IP 40

EMV

- entsprechend EN 61326 Klasse B

Für alle Messverstärker gibt es passende Sensoren aus MEINSBERG.

For each transmitter you find suitable sensors from MEINSBERG.



MV 3000 / 4000

Messverstärker / Transmitter

Specifications

Transmitter MV 3000 / 4000

Temperature compensation

- automatically with Pt 1000 or fixed temperature

Calibration

- using 2 configurable buttons or PC software

Signalisation

- LED: measuring value stability for calibration, measuring, errors

Display (Series MV 4000)

- graphic LCD, 48 x 64 pixel, back-lighted,
- display for 3 values (value 1, value 2 and temperature value)
- clear calibration instructions

Controller output

- 1 limit relay, NOC 24 V AC/DC, max. 1 A

Analogue outputs

- 2 x 0(4) ... 20 mA or 2 x 0 ... 5 V

Interfaces

- MV 4000: USB (optional RS-232)
- MV 3000: RS-232
- for configuration, calibration and data logger

Dimensions (W x H x D)

- 22,5 x 99 x 114,5 mm

Display Unit AZ 3000

Display

- graphic LCD, 64 x 128 pixel
- display for 8 direct and virtual measuring values

Controller outputs

- 2 limit relays, NOC 24 V AC/DC, max. 1 A

Analogue outputs

- 2 x 0(4) ... 20 mA or 2 x 0 ... 5 V

Interfaces

- RS-232 (optional USB) for parameterisation and configuration
- RS-485 for data transmitting (ASCII-protocol)

Virtual channels

- 2 virtual channels for addition, difference, absolute difference from measuring values and pH-compensation of free chlorine

Data logger

- 64 kB, ca. 2500 values
- logging interval, adjustable (1 ... 999 s)

Dimensions (W x H x D)

- 45 x 99 x 114,5 mm

General

Firmware update

- via PC-interface (only MV 4000)

Power supply

- 15 ... 24 V AC / DC, ca. 1,5 VA

Ambient temperature

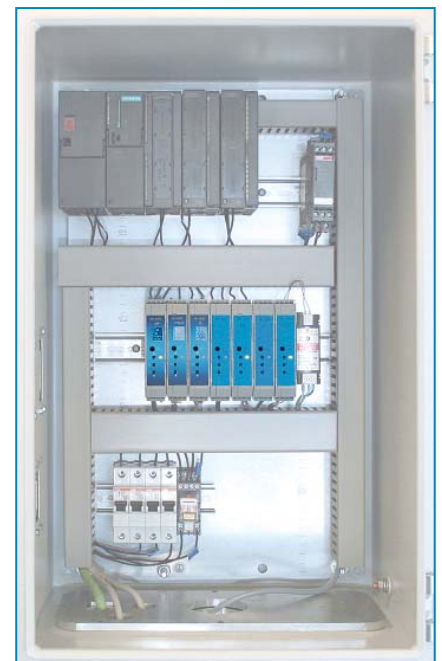
- 0 ... 50 °C

Enclosure

- plastic case for mounting on rail tracks DIN EN 50022-35
- protection IP 40

EMC

- EN 61326 class B



SENSORTECHNIK MEINSBERG GmbH
Meinsberg, Kurt-Schwabe-Straße 6
D-04736 Waldheim

北京品超思瑞科技有限公司总代理
010-63150800
E-Mail: pcs@pcsr-tech.com

德国制造

Made in Germany

